

ABSTRACT

The present invention is directed to the full-length cDNA sequence encoding human diaphanous-3 (DIAPH3), to DIAPH3 encoded thereby, and to fragments of DIAPH3 and the cDNA. The present invention also provides for the use of the cDNA, and of DIAPH3, as a marker of poor prognosis of breast cancer. Because DIAPH3 appears essential for proper spindle pole formation during mitosis, DIAPH3 is a useful target for screening assays designed to identify inhibitors or modulators of DIAPH3 activity, which are useful for the treatment of cancer, particularly breast cancer. Thus, the invention further provides methods of using DIAPH3, or fragments thereof, in assays to identify such compounds.